Taylor. (I. E.)

Regards of the Author

Extracted from the American Journal of the Medical Sciences for July, 1880.

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I SELECT the word Hysterectomy as it expresses the true meaning of the act, the ablation or the removal of the uterus and ovaries, after the Cæsarean section is performed. Hysterotomy simply implies an incision without removal.

The medical profession are under many obligations to Dr. R. P. Harris, of Philadelphia, for his very valuable papers on the Cæsarean section, especially the last two, published in the *Americal Journal of the Medical Sciences*, for January and April, 1880. No writer has given more time, unwearied investigation, and closer attention to this important subject, and his information has been derived from various sources, not only in America and the British Isles, but also Continental Europe.

From his last two papers we glean that it is an absolute necessity, if the operation is to be successful, it must be attempted or resorted to as early as possible, or as early as the nature and circumstances of the case will admit, not only for the benefit and welfare of the mother, but of the child. Dr. Thomas Radford was a strong advocate for an early performance of the operation. It is however to Dr. Harris's untiring zeal, and to his able exposition of statistical information, that we are indebted for the conclusive proof that it should be performed early.

"If," he says, "we persist in the delay of the last ten years, it will make but very little difference what operation is performed, there must be a frightful mortality. To think of twenty-six deaths in thirty-two operations, is a sad reflection, but the result is not to be wondered at, when twenty-four of the women were not

operated upon till it was too late to have any but the faintest hope of success except in a few instances, these labours lasting from one day to two weeks, and a large number being two, three, or four days under this fruitless and exhausting process. Early cases tell the story of the last decade's failure."

The deduction from these remarks of Dr. Harris exemplifies how truly and decidedly they affirm and corroborate the true obstetrical law as recognized by the profession.—That in any case of natural labour which continues over twenty-four hours, the unfavourable results will be to the mother as one to six deaths, and for the child as one to four.

If nature pressing on to twenty-four hours shows such an unfavourable issue, what must be expected from any kind of instrumental delivery, or the Cæsarean section, either by the older method, or the recent modification, or laparo-elytrotomy?

The true and best test of these capital procedures is the result in cases in which the operation is performed early, and the correct appreciation from the statistical information respecting the operation should be from cases of that nature; unfavourable or almost moribund cases when the operation is resorted to should be excluded from the statistics.

The last report of Dr. Harris on the Porro operation shows that up to that time, April, 1880, there had been thirty-six cases operated upon, of which one-half were saved and one-half died. By rejecting or excluding those cases which were unfavourable owing to labour having existed for a long while, or through an exhausted condition of the system, the proportion would be materially changed, and would be as eighteen to eleven, nearly sixty-two per cent. saved.

In his article "On the Porro Modification of the Cæsarean Section in Continental Europe" (*American Journal of the Medical Sciences*, April, 1880), Dr. Harris descants on the valuable and original physiological experiments of Blundell in 1823 on rabbits recently delivered, and where the uterus was extirpated in four instances, three of these were successful and the fourth died. From these experiments Blundell presents the question to the profession: When the Cæsarean operation is performed, or when a patient is evidently sinking after a rupture of the uterus, might not the whole uterus be taken away? The physiological experiments of Prof. Porro in 1874, on the gravid uteri of rabbits, were made fifty years after those of Blundell, and the first practical illustration on record on the human subject was by Prof. H. R. Storer, of Boston, on Mrs. H., for fibro-cystic tumour of the uterus, complicated with pregnancy, and published in the *Gynæcological Journal of Boston*, by Dr. G. H. Bixby, October, 1869.

In his article Dr. Harris puts the question to the American medical profession, "Shall we adopt the Porro method of operating in the United States?" As many members of the profession may not be acquainted with the origin, the nature, and the manner of the operation as performed by Prof. Porro, of Pavia, Italy, a reference to his operation may add some

interest to the subject under consideration, especially as the uterus had been extirpated before by Dr. Storer. Dr. Storer's claims appear to have been set aside or ignored by some of the Continental operators. Dr. Welponer, of Vienna, and Dr. Wasseige, of Liege, Belgium, consider the operation to have been purely an accidental one, arising from the nature of the case—a large fibro-cystic tumour blocking up the pelvic cavity, and admitting a space of only one and a half inches for the delivery of the woman. "We exclude," says Wasseige, "from the statistics the case of Storer, because the extirpation of the uterus was done with another object." The reasons assigned by Dr. Storer were the following:—

1st. That with the mechanical interference by the tumour the escape of the fœtus per vias naturales was utterly impossible.

2d. That the space of less than one and a half inches would not admit of either craniotomy, cephalotripsy, or cranioclasm, or any other mechanical interference per vaginam.

3d. That Cæsarean section in accordance with the views of all authors was clearly indicated as the only result; provided it were possible to remove the tumour by abdominal section.

After gastrotomy, the fibro-cystic tumour was opened, and found in a state of considerable degeneration.

The hemorrhage being already very profuse from opening the tumour, as Dr. Bixby says, and the danger from shock and exhaustion being imminent, Dr. Storer extended his incision into the cavity of the uterus, and with all expedition removed the child and the placenta, which was also in a state of decomposition.

There was little time to be lost, for the hemorrhage was perfectly frightful from the incision into the muscular structure of the uterus, together with the other vessels at the site of the placenta, and it was evident that the irregular contraction of the uterus could not staunch. Accordingly a large-sized trocar was passed through the upper segment of the cervix uteri, and a metallic cord passed doubled through its canula, the whole was firmly tied in two parts. Fearing that this might not be secure, the chain écraseur was applied, and the mass slowly removed. Dr. Storer's clamp was then used. The external wound was closed by ten metallic sutures. The patient died in sixty-eight hours after.

The removal of the uterus in this case was attempted in consequence of the tremendous hemorrhage owing to the exceedingly vascular structure involved, and which would not apply in many, if any, of the simple uncomplicated cases of pregnancy. It was therefore on the part of Storer an ulterior object, and not an original intention of the operator. I have intentionally presented the particulars of Storer's case, so that a just and correct opinion may be formed respecting the true nature of it. Dr. Storer nevertheless did perform the first operation for the extirpation of the pregnant uterus. Storer's case was unsuccessful, as might be reasonably expected, but it was done to save the woman as the last hope. It is possible, therefore, that this formidable operation would from that instance alone, never have been recorded as one for adoption, or advocated as a modification of the Cæsarean section.

The operation of Prof. Porro was in this manner:—

"A dwarf, a primipara 25 years of age, four feet nine inches high, entered the obstetrical wards of the Hospital of the University of Pavia. She suffered severely with rickets when a child, and her pelvis became very much deformed. May 21, 1876, was taken in labour. Waters broke with the first pains, and after their continuance for six hours and forty minutes the Cæsarean operation was performed by Dr. Porro, and a living child removed.

"The uterus contracted, but not sufficiently to close the sinuses in the incised portion, and much blood was escaping from one edge of the wound. No effort in any way was made to arrest the hemorrhage, to enable the organ to contract, or to close the womb by sutures. The operator at once decided to extirpate the uterus, which he did with a strong wire and serre-nœud, placing the loop around the cervix opposite the inner os, and then tightening it. He then cut away the uterus by the scissors, passed a long drainage tube through Douglas's cul-de-sac, brought the cut cervix to the abdominal wound, and closed the abdominal incision with wire sutures.

"The operation commenced at 4.49 P. M; operation, nineteen minutes; sewing up, seven minutes; medication, eight; operation proper, twenty-six minutes."

Prof. Porro's operation proved successful, and the credit of having performed the first successful case of gastro-hysterectomy in a parturient women, without any complication, belongs to Porro. Had the patient of Porro died, as Storer's did, it is possible, independent of the valuable experiments on rabbits, and suggestions of Blundell in 1823, and of Porro in 1874, and others, the profession would, probably, never have heard any more of the new modification of the Cæsarean section, and we would not at the present time, but for the successful issue of Porro's case, be considering its advantages over the old style.

Since the publication of his paper, in the April number of the *American Journal of the Medical Sciences*, which includes only 36 cases, in a letter dated April 22, Dr. Harris informs me that he has increased the European list by 12 more cases, making, with the two American cases (Storer and Taylor) the whole number, at this time, 50 cases, of which forty-nine were operated upon in the last four years.

The 50 operations are divided as follows:—

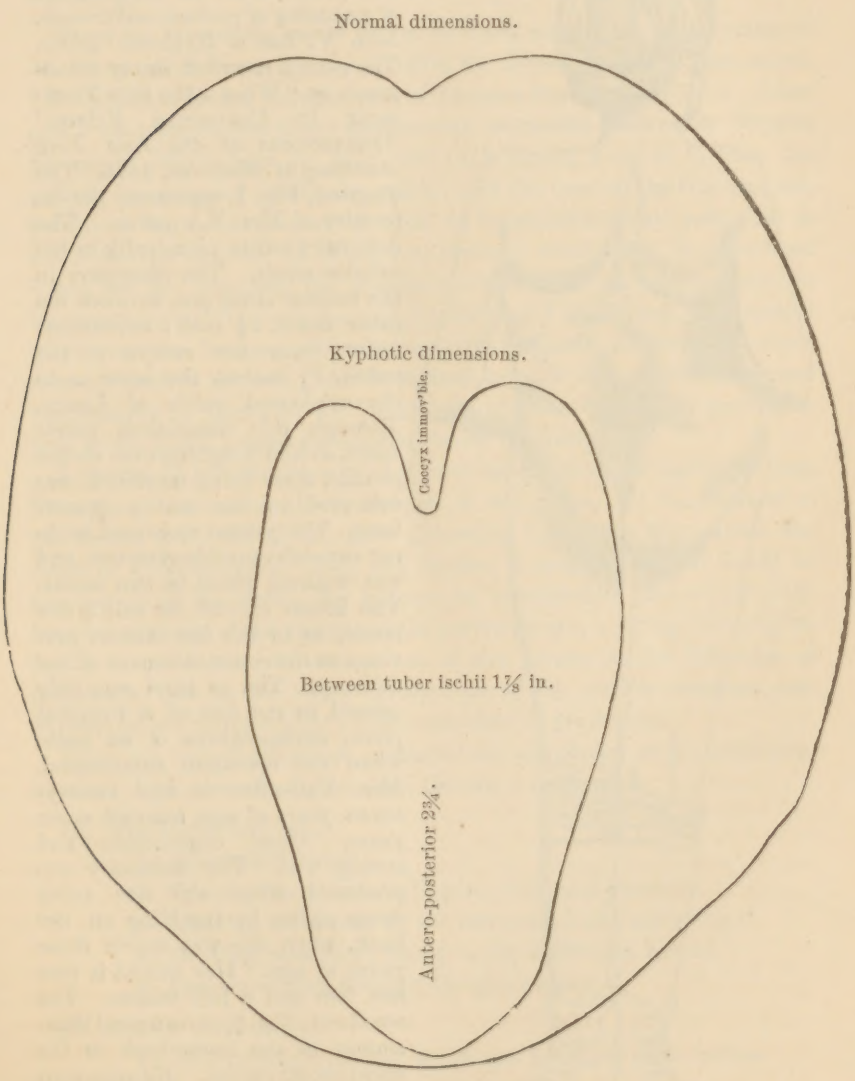
United States . . .	2	Operations.	0(?1)	Women	saved.
Italy	23	"	8	"	"
Austria	11	"	6	"	"
France	7	"	4	"	"
Germany	4	"	0	"	"
Belgium	2	"	1	"	"
Switzerland . . .	1	"	1	"	"
Total	50	"	20(?21)	"	"

Austria may possibly be entitled to 7 cures. No operations in Russia.

In marked, and I may say, very favourable contrast to these, we have the statement of Prof. Chiara that out of 62 operations, old style, performed by Porro, Billi, Lazzati, and himself, all had proved fatal but three (3), which were saved by Billi out of his 37 cases. The balance, 25, under

Porro, Lazzati, and himself, were all fatal; the proportion being as 1 woman saved to 21. The recent modification giving the proportion as 1 to $2\frac{1}{3}$, and this in continental Europe, where there are so many cases of deformities presenting themselves. The success, therefore, of the new departure is remarkable and very great.

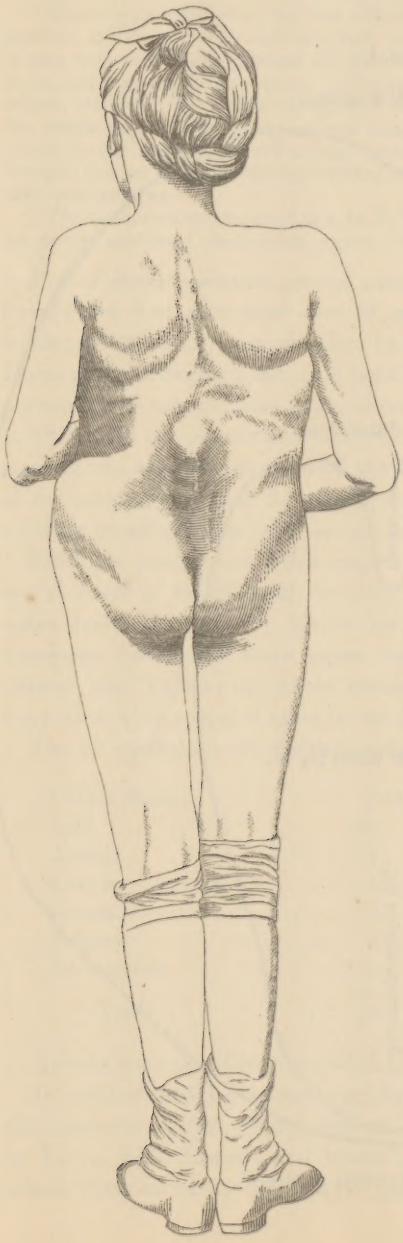
Fig. 1.



Kyphotic pelvis (outlet) of Mrs. V.

Case.—In the early part of December, 1879, Mrs. Vallentine called on me and stated that she was four and a half months advanced in pregnancy, and that she had decided with her husband and her mother that she wished to have a living child; that she did not desire to undergo the former kind of operation, and have the child sacrificed. I had operated on Mrs. V. March 5, 1875, performing craniotomy, cephalotripsy, and cranioclasm, in the presence of a number of professional friends. Mrs. V. has a Kyphotic pelvis. The case is recorded in my monograph on "What is the Best Treatment in Contracted Pelves." *Transactions of the New York Academy of Medicine*, 1876. The diagram, Fig. 1, represents the deformity of Mrs. V.'s pelvis. The deformity exists principally in the inferior strait. The diameters in the inferior strait are, between the tuber ischii, $1\frac{7}{8}$ inch; antero-posterior, from the coccyx to the pubes, $2\frac{1}{4}$ inches, the same as in the celebrated pelvis of Lange. Through this diminished pelvic space, a child weighing over eleven pounds, after being sacrificed, was delivered in one and a quarter hour. The patient recovered without any unfavourable symptom, and was walking about in two weeks. The labour existed for only a few hours, as in the last labour, previous to the commencement of her delivery. The os uteri was only opened to the size of a five-cent piece, seven-eighths of an inch, when the operation commenced. Mrs. Vallentine is now twenty-seven years of age, married seven years. Good constitution and strong will. The deformity was produced when she was going down stairs, by tumbling on her back, when she was nearly three years of age. Her height is four feet four and a half inches. The wood-cut, Fig. 2, gives a good illustration of the hump-back in the dorso-sacral region. No argument could change her mind respecting any kind of operation I might select; she wished a living child.

Fig. 2.



If it will not be considered as irrelevant at this time, but to show her determination and will and nerve, just as she was going to step on the table she handed me a small slip of paper, on which was written, "Doctor, I have no more change." January, 1880. I invited my colleagues of the Maternity Hospital, Drs. Lusk, Pallen, Gillette, and Mundé, to examine her at my residence. After the examination they thought it a favourable case for operation, and for laparo-elytrotomy. My own views were not decided at that time, whether I should select gastro-hysterectomy or laparo-elytrotomy.

From the favourable report of Dr. S. Possi respecting the operation of M. Pean, whom I saw operate in 1873, for fibroid tumour of the uterus, I learned that he had saved 17 out of 24 cases from 1869 to 1875. Later still I read the reports of the uncommonly successful cases of Dr. Thomas Savage, of Manchester, in 1878 and 1879, saving 5 out of 6, when the pedicle was dropped inside the pelvis; and the case of Dr. Gillette, successful to the mother, operated upon by laparo-elytrotomy, published in the *American Journal of Obstetrics*, January, 1880. Dr. G. considered "that for the operation the armamentarium of the obstetrician must be increased beyond his scalpel, sound, ligatures, and blunt hook, independent of version, the forceps, perforator, cephalotribe, and cranioclast," which were all used in his case. All these facts induced me to adopt the recent modification by Porro, of the Cæsarean section, as giving my patient, as well as the child, a more favourable chance for living.

I waived all consideration of any more danger from the operation than from the operations for fibroid tumours of the uterus, and the removal of the uterus, or for any of the other abdominal operations for various diseases or circumstances. But, still further, I considered what would be the pedicle of the uterus, the isthmus or intermediate part which exists between the body of the uterus and the cervix proper, as being more eligible for an operation for the extirpation of the uterus, at the full term of pregnancy, than in the non-pregnant state of the uterine structure, consequent on the physiological changes incident to pregnancy.

There are two modifications presented for acceptance to the profession to which I propose offering another, the one I performed.

1st. The Porro method—

1. Abdominal incision.
2. Opening the uterus, delivering child and placenta.
3. Ligating the uterus by the serre-nœud and removing it.
4. Securing pedicle by clamp to the abdominal wound.
5. Drainage tubes through Douglas's space.

2d. Müller, of Berne:—

1. Abdominal incision of seven and a half to eight inches.
2. Turning out the uterus.
3. Ligating it by the serre-nœud or écraseur.

4. Opening the uterus and delivering child and placenta.
5. Securing pedicle or stump to the abdominal wound.
6. Drainage tubes through Douglas's space.

3d. Taylor, of New York:—

1. Abdominal incision, four and a half to five inches.
2. Opening the uterus and delivering child only.
3. Ligating the pedicle with strong whip-cord or fish-line, as a temporary ligature.
4. Cobbler stitch one inch below for permanent ligature.
5. Removing uterus with placenta by scissors or scalpel.
6. Dropping pedicle in the pelvic cavity; no drainage tubes.

It was my intention to have operated a few days previously, so that I could avail myself of the daylight. Mrs. V., however, on the evening of the 7th April, had incipient uterine pains. Early on the morning of the 8th labor had commenced. Pains at intervals of three-quarters of an hour. No dilatation of the cervix uteri. Cephalic presentation. Auscultation gave no evidence of the placenta being over the anterior part of the uterus, but it was recognized in the right lateral region of the uterus. 3 P. M. was selected as the time for the operation.

At 2½ P. M. pains every 20 minutes. Vaginal examination as before, and not the slightest dilatation of the cervix. Bowels had been moved, and the bladder evacuated.

At 3 P. M. Present Drs. Lusk, T. Burchart, H. Deblois, J. M. Hills, C. Cleaveland, F. Dennis, F. A. Burrall, C. A. Leale, W. Wells, of New Rochelle, Gillette, Mundé, and several others who came in later. The Listerean method was adopted, not only in the dressing, but the spray was used before, during, and after the operation. All the instruments, sponges, ligatures were carbolized.

The line of incision was through the linea alba. The abdominal structures were very thin. There was no hemorrhage, and the length of incision was four and a half to five inches. The anterior part of the uterus at once came into view, presenting a very vascular appearance, of a deep purple colour. The uterine sinuses were noticed coursing through its structure, large and full, and evidently betokened that a part of the placenta was lying underneath in the line of incision. Free bleeding followed the first gentle touch of the knife in the peritoneum of the uterus. The incision was made through the muscular structure, which was not more than one-third of an inch thick, and one inch long. The finger introduced recognized at once the placenta. The uterus was then quickly divided by the scissors up to the fundus, and downwards to within one and a half inch of the bladder. The hand was immediately carried through the partial placental attachment, the right groin of the child seized and safely delivered, and the child—a large one—cried instantly. The cord was tied by Dr. Dennis. Dr. Lusk was requested to elevate the uterus and tilt it forwards, while I cast a strong fish line around the base of the body of the uterus, and tied it as a temporary ligature three-quarters to one inch below the muscular structure of the body. The placenta was allowed to remain in utero. Immediately a double carbolized, strong Chinese silk ligature was passed an inch below the upper ligature with the strong curved needle I am in the habit of using in cases of lacerated

perineum. The ligature was then tied very tight, and, as I thought, made secure enough. I had decided, previously to operating, to use the cobbler stitch, but the pedicle appearing so much smaller than I expected, I rested confident at the time on its availability, allowing even for some retraction to occur. I was, however, mistaken; after the retraction, the spermatic artery on the left side I found was bleeding, as well as the utero-ovarian artery running through the broad ligament. In a short time the cobbler's suture was inserted through the superior part of the broad ligament, as well as through the pedicle of the uterus, and the hemorrhage was arrested at once. No blood or liquor amnii escaped into the pelvic cavity, and it was left perfectly clean and dry. The abdominal wound was closed by carbolized silk sutures and dressed *a la Lister*.

The hemorrhage when the uterus was first incised, as it was very vascular, welled up quite freely, and to some may have appeared considerable, but it bore no comparison to the excessive and gushing stream in her first confinement, after the placenta had been cast off. Dr. Dennis, who carefully watched the pulse, informed me that at the close of the operation her pulse was as favourable as could be expected after the quick delivery of the child as well as the removal of the uterus, although it was considered as full during the operation. The shock, if there was any, would be attributed to this circumstance.

The time of operation was, as recorded by Dr. W. Wells, of New Rochelle: First incision at 3.20 P. M. Uterus opened at 3.25 P. M.—5 minutes. Child delivered at 3.27 P. M.—7 minutes. And uterus ligated and removed at 3.30 P. M.—10 minutes for operation. Finished operation entirely at 4.20 P. M.—1 hour.

Two hours afterwards the record was, pulse, 120; respiration, 30; temperature, $99\frac{3}{4}^{\circ}$. At 10 P. M., pulse, 112; respiration, 26; temp., $99\frac{3}{4}^{\circ}$. At 10 P. M., second night, pulse, 108; resp., 22; temp., $100\frac{1}{4}^{\circ}$. It is not necessary to continue this minute detail, which was regularly kept until the sixth day. Only on the fifth day the temperature was $101\frac{1}{4}^{\circ}$; pulse, 99; resp., 18.

The treatment was chiefly milk and lime water, in small quantities, for four or five days; hypodermic injection of Maj. sol. morph. five drops, according to circumstances. She generally slept very well and naturally, and every morning, when asked how she felt, responded, "Very well—splendid; I want something to eat." As the kidneys were acting very freely, the urine was drawn every three or four hours, unless she was asleep. The object in evacuating the bladder so often was to prevent its becoming so distended as, by stretching of its peritoneal covering, to drag upon the pedicle. On the sixth day the abdominal sutures were removed, and everything presented a favourable aspect. A few hours afterwards I recognized that the lower part of the external wound was not perfectly closed for one and a half inch. Two sutures were introduced, and the wound was completely closed by the 30th of April.

On the seventeenth day phlegmasia dolens commenced in the calf of the right leg, and on the twenty-first day it was beginning to subside. It was a mild attack, but on that day the left leg showed slight symptoms. Both limbs had materially improved by the treatment on the 2d of May, so as to exclude any danger from the disease itself. There was no fever, no increase of pulse or temperature during the duration of the phlegmasia, nor at any time after the operation. The treatment was ammon. carb. and tinct. ferri mur. Limbs swathed in soft flannel. She had been taking

for some time iron and quinia. She improved so much from the phlegmasia dolens, and as the wound was perfectly healed, and no other symptom existing to claim attention, patient feeling remarkably well, as she herself said, except the limb, that on Sunday, May 2, I was considering about dismissing her, and only visiting her occasionally. She expressed a strong desire to get up and be moved on to the couch. I learned that she had previously, on the 15th, been up for a short time. I insisted very decidedly that she was not to rise or move herself about the bed, informing her of the great danger now that she was convalescing from the phlegmasia, greater than when it commenced. I did not visit her on Monday. That morning, while her husband was absent, she was lifted from her bed by the nurse, whom she had changed, and by her own assistance she got up, and sat in the rocking-chair for some time. Her husband returned home at 4 P. M., at which time she had slight vomiting, was faint, restless, and had some dyspnœa. I was sent for at 4.30 P. M., visited her at 5.15, and at once recognized that my patient had cardiac thrombosis, and had but a short time to live. Her face was mottled; lips blue, nails, fingers, and toes the same; cold hands and feet; almost pulseless; and dyspnœa. She was conscious, and informed her husband and myself that she was dying. I remained one hour, and she died at 7.30 P. M., three hours from the commencement of the attack of embolon, and twenty-six days after operation.

I regret this denouement, but no case could present a more clear exposition of disobedience to the advice of a physician, and the penalty was death. This is the third instance of embolism I have seen in five or six weeks. One of my patients died of embolism of the pulmonary artery five weeks after confinement. In two cases, some few years since, both of my patients being self-willed, and thinking they were perfectly well, contrary to the advice given and urged not to move the limbs, died in twenty minutes. Mrs. V.'s sudden death, therefore, though it may have an indirect bearing on the case, cannot militate against the exceedingly favourable result of the operation, for there was not the least untoward or unfavourable symptom occurring during the whole convalescence, everything was so perfectly natural. The attack of phlegmasia dolens was a mild one, though fatal in its issue from disobedience.

The time for the performance of Porro's method is from thirty to forty-five minutes or one hour. Müller's operation requires from one and a half to two hours, as in Liztman's case.

An objection has been entertained against this method, that it deprives the child of its natural supply of blood, and it has to be resuscitated after its removal from the uterus. The reasons I entertained for not resorting to the serre-nœud of Cintrat, or any of the different écraseurs, although I had prepared myself with them in case I should require their assistance, as well as for not using the clamp, and having the pedicle attached to the abdominal wound, were the following:—

Dr. Wasseige, of Liege, Brussels, in the report of his second case, says: "A chain écraseur was applied to constrict the cervix, but the tissues being

so very friable an artery was opened, and before it was secured there was a serious loss of blood." In Dr. Coggi's case: "The pedicle or stump had formed no adhesion with the abdominal wound, which was five and a half inches long, and was in part retracted within the abdominal cavity; a portion of the inferior angle of the wound being retained by a fragment of uterine tissue held in the handle of the serre-noeud. The autopsy showed a retraction into the pelvic cavity by a failure of union with the parietes, and that this was interfered with by the involuntary movements produced by the serre-noeud." In Prof. Chiara's first case: "In consequence of the effect of vomiting, the pedicle was drawn into the abdominal cavity, and a knuckle of bowel forced out. This gave a severe shock to the system, from which she did not rally. The patient was in good health at time of labour." In one of Blundell's experiments, the fourth, the rabbit died in consequence of the ligatures slipping from their places, which were in contact with the abdominal incision internally. But independent of these citations, and others might be made, I was influenced by the anatomical views I entertain respecting that part of the uterus which intervenes or exists between the muscular structure of the body of the uterus and the cervix uteri proper—the isthmus, a structure which is entirely different from the body, narrower and slender, yet having space sufficient, consequent on its capability of being stretched or lengthened, to admit of its being ligated and divided between the ligatures, and to drop the pedicle into the pelvic cavity, instead of having it attached to the abdominal wound, as is so frequently done in the case of the ovarian pedicle. There will and must be consequently less motion or disturbance given to the cervix uteri, from its central position in the pelvis, and it will avoid its being twisted on its own axis. If the pedicle is short it must inevitably drag upon its attachment or union to the abdomen, as we have seen in the cases referred to. The pedicle will necessarily be longer in some instances than others; after the union has become complete, with the external wound, it may in time become, if it was short, amply long enough by its stretching, as it was in Porro's case, to allow of free motion.

On examination of a case after several months it was found that it had become *one* inch long, so that the woman could run, walk, and jump without any abdominal pain. Now, neither the muscular structure nor the glandular cervix admit of such lengthening or stretching. As a further corroborative proof as to the part stretching, it has been demonstrated in the unimpregnated uterus, and after many months after delivery in a non-involution of that organ, and in some cases of procidentia uteri.

Let us examine now the illustration (Fig. 3) of the specimen of the ablated uterus immediately after its removal from Mrs. V. and the delivery of the child. It exhibited anatomical as well as physiological points of much value and considerable interest. I was not prepared, however, to witness as clear and decided demonstrations respecting the three differ-

ent kinds of structure belonging to that organ when in the pregnant state and when at the full term of pregnancy.

The specimen shows:—

1. The firm and true muscular element belonging to the body of the uterus solely, clearly, and distinctly.

2. The fibro-serous element existing between where the true muscular structure terminates and the cervix uteri, the isthmus or intermediate part, as this is the part which is constricted or ligated, and where extirpation is made, and may be two to two and a half inches long, and not the muscular structure; nor

3. The glandular structure, the cervix proper, which is left in the pelvis. The cervix was not dilated in the least.

Fig. 3.

a, body of uterus; *b*, pedicle.
Length of muscular stump, 9½ in.; breadth, 5½ in.; length of pedicle ¾ in.; breadth, 1¾ in.

No living specimen could demonstrate more positively the views which I have held and advocated for so many years, and it proves how erroneous the opinions and views of some obstetricians are, as well as are the late opinions of Bandl, of Vienna, respecting this intervening or intermediate portion of the uterus. Some of the operators have stated that it is the cervix uteri which is constricted, but that part remains after ablation, and

is intact if the operation is performed early and the cervix has undergone no expansion.

With this modification of the Cæsarean section the operation can be taken advantage of before or at the commencement of labour. The muscular structure will then have suffered no change from continued contraction. By the removal of the uterus it sets aside the fear that metritis or metro-peritonitis will take place. As there is no uterus, the blood and lochia are excluded from creating any peritonitis or septicæmia arising from their presence. Prof. Spath has informed us that it has aided, if not cured, his patient with osteo-malacia. Hemorrhage need not be feared.

Shock to the nervous system is incident to all capital operations, and I do not think there is or will be more to be feared from the removal of the uterus than from a large fibroid, or fibro-cystic, or any abdominal tumour.

Syncope, for various reasons consequent on any capital operation on the abdomen, may happen in the most favourable cases, as is witnessed sometimes in natural and easy cases of labor. I have witnessed two cases of syncope in one day in quick but short and sharp deliveries in delicate persons; the patients were supposed to be dying or dead.

I erred in the manner of ligating the pedicle, as my judgment was overruled by the appearance of the smallness and thinness of the pedicle which I had to deal with, as well as from its size, its structure and its breadth, as the specimen shows, not being more than one and three-quarters inch in diameter. I should have applied the cobbler's stitch or suture as I originally intended, and not rested secure on the double ligature, and I do not think there would then have been any retraction of the pedicle from the ligature, and the arteries, the spermatic and utero-ovarian, would not have become exposed so as to demand any further constriction. I have always attached considerable value to this suture under various surgical necessities demanding its application over the ordinary form of suture, since I first used it in 1864, and presented it for acceptance to the medical profession in my monograph on procidentia uteri—*Bellevue Hospital Reports*, 1869. Dr. Emmet adopted it in several of his ovariotomy cases, and by the number of times he has resorted to it acknowledges its value.

This is the first instance in this country of the avowed intention, after the Cæsarean section, of extirpating the uterus. It was, so far as the operation is concerned, perfectly successful, as it is generally thought that, if the woman is doing well on the sixth or eighth day, she is almost certain to recover. The phlegmasia dolens which occurred on the seventeenth day, and was slight, was in a great measure recovered from. The death of the patient was caused by her own imprudence in rising from her bed contrary to positive and emphatic advice, especially at the time of recovery from the phlegmasia, and not by anything relating to the operation. Why should the case not, therefore, be considered among the saved, after twenty-six days from the operation?

The method I adopted differed in some respects from the methods of the Continental operators. The unique specimens illustrate distinctly the great advantage, I believe, of this modification. I am therefore impressed with the belief that it will be far preferable, for the reason advanced, and the anatomical view I have presented, to treat the pedicle as I did, and not resort to the clamp and drainage-tubes. In Briesky's case the cervix, as he states, remained open for forty days, forming a fistula. Septicæmia may therefore evidently occur from the imperfectly closed vessels of the pedicle.

The operation of removing the uterus is, from the standpoints I have taken, simple and easy; in it there is as much of a pedicle to ligate and remove as in an operation for ovarian tumour, and it is as justifiable as the removal of any ovarian tumour. The pedicle is longer in some instances than in others, and is modified in structure according to the nature of the constitution of the female at the time of operation, thicker or thinner, denser or more friable. As to the ablation of the uterus, unsexing the woman, it does no more than the Battey operation for the removal of the ovaries in the unimpregnated state. The future beneficial result, nevertheless, is to the woman of incalculable advantage and benefit. It claims an interest in her behalf in not allowing her to have any more progeny. It abrogates her right, justly, and as I conceive morally it should, to undergo another capital operation. It is a boon to her, though she may not be aware of the loss of the womb. It is absolutely necessary in a social and political aspect; for women of that class who are deformed from disease, as is witnessed so often in Continental Europe, are not capable of giving that care and attention necessary for the sustenance of their children, who, as well as themselves, are more generally cast upon the public charities for support, and they virtually become therefore a lien on the finances of those charities. The operation may unsex the mothers so far as the loss of the uterine organs are involved, but it does not remove or extirpate the sensual enjoyment, as that remains as normal as ever. It is a moral obligation, I hold, therefore, of the highest duty to sacrifice that organ, as much so as it is held to be a high moral duty by some of the most eminent obstetricians, and none more so than by our celebrated Meigs, that the sacrificial act of the child should not be performed several times, and by some that not more than once in those cases of deformed pelves necessitating the performance of craniocłasm, but to relegate it to the performance of the Cæsarean section or the modification of that operation or laparo-elytrotomy.

A word or two as to why, in my own case, only one ovary was removed. This was owing to my not recognizing how much the uterus was leaning to the left side, and thus not being held in the central position, which prevented the left ovary from being included in the ligatures of the pedicle. One ovary remaining will not admit of the idea being entertained, which idea has been advanced, that pregnancy might occur again. To

entertain such an opinion at the present enlightened age, can only be construed into a visionary hypothesis.

The success of the recent modification of the Cæsarean Section by Prof. Porro is truly remarkable and very great. Only four years have elapsed, and there have been forty-nine operations; and in eleven years fifty, including Storer's. It has certainly instituted an entirely new order of events respecting the Cæsarean section, considered as it is by some as one of the most dangerous of all abdominal operations on the female. It is, however, a very singular circumstance, under the present aspect of the Cæsarean section, as to what kind of operation to perform, simple or modified that Prof. Blundell says: "If the Cæsarean operation be performed on a rabbit in the ordinary way, it will generally be found, unless I am much mistaken, that the *animal perishes in consequence*." With his four experiments and removal of the uterus, three were successful out of the four. The modification by Porro of the "old style," thus far has diminished the death-rate very much. As I stated above, Prof. Chiara has shown by his last report, which I have quoted, that out of 62 cases lately performed, as before the new departure, only 3 were saved; which is as 1 saved to 21 deaths. By the modification, it has been demonstrated, as shown by the latest record of Dr. Harris, that out of 50 operations there were 20 saved—1 to $2\frac{1}{2}$; if the unfavourable cases are excluded nearly 75 per cent. This record on the human subject would seem to corroborate Blundell's experience on animals. Time will, I believe, prove it to be an immense advantage to the parturient woman suffering from these great deformities of the pelvis, and at this early day, only four years since the innovation, the prediction of Blundell has been verified, and his pronunciamento will be accepted as true, that it is "an eminent and valuable improvement in obstetrics."